

**REMARKS**

This Application has been carefully reviewed in light of the Office Action mailed February 8, 2007. The Office Action suspends prosecution of the present application for a period of three months and requires the Applicant and the assignee of the instant application to provide the following information:

A. Stipulate whether each and every individually cited reference listed on the IDS(s) submitted 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006<sup>1</sup> is material to the patentability of the instant application; the applicant may either agree or disagree for each cited reference.

1. Identify, for each and every citation listed on the IDS(s) submitted 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006, for which applicant agrees is material to the patentability:

a. The differences between the claimed invention and those references cited therein,

b. How each reference is material to the patentability, based upon the technical and legal knowledge of the Applicant, of the claimed invention,

c. Provide how the instant claimed invention is an improvement over each and every reference that is listed in the IDS submission(s) dated 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006.

B. Provide a copy of any non-patent literature, published applications, or patent (US or Foreign) used in drafting the instant application, whether or not cited in the IDS submission(s) dated 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006.

C. Provide a copy of any non-patent literature, published application, or patent (US or Foreign) that was used in the inventive process to accomplish the applicant's inventive results.

D. Provide the date of first use of the claimed invention, known by any of the inventors or Applicant, at the time the application was filed notwithstanding the date of use.

E. Trademark(s) or Copyright(s) for the product(s) incorporating the instant claimed invention.

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<sup>1</sup> The Office Action refers to IDSs submitted 1/11/2005, 5/4/2005, 7/26/2005 and 10/26/2006. Applicant assumes that this is a "cut and paste" error from an unrelated office action prepared by the Examiner, since no such IDSs were submitted in the instant application.

F. In order to constitute a complete response Applicant is required to include stipulations for each and every reference cited in the IDS submission(s) dated 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006 as well as each and every IDS submission thereafter, as delineated in requirement A.

Under 37 C.F.R. § 1.105, an examiner may “require individuals to submit information as may be reasonably necessary to properly examine or treat the matter” in a pending application. 37 C.F.R. § 1.105(a)(1); cf. MPEP § 704.10. “There must be a reasonable basis for the information required that would aid in the examination of an application or treatment of some matter. [An RFI] places a substantial burden on the applicant that is to be minimized by clearly focusing the reason for the requirement and the scope of the expected response. Thus, the scope of the requirement should be narrowly defined, and a requirement under 37 C.F.R. § 1.105 may only be made when the examiner has a reasonable basis for requiring information.” MPEP § 704.11.

It is well settled that “the terms ‘factual’ and ‘facts’ are included in 37 CFR 1.105 to make it clear that it is facts and factual information, that are known to applicant, or readily obtained after reasonable inquiry by applicant, that are sought.” MPEP § 704.11. Thus, requirements under 37 CFR 1.105 may not be used to request opinions that may be held or would be required to be formulated by applicant. *Id.*

Where factual information requested is related to the subject application, the “applicant would be expected to make a reasonable inquiry under the circumstances to find the factual information requested. Applicant need not, however, derive or independently discover a fact, such as by experimentation, in response to a requirement for information.” MPEP § 704.11. Like obligations imposed by the duty of candor and good faith, section 1.105 requires an applicant to submit information already known, “but there is no requirement to search for information that is unknown.” MPEP § 704.12(a).

To the extent that the requests for information included in the Office Action are consistent with the principles above, and in furtherance of the principles stated above, Applicant submits the following responses to the requests for information included in the Office Action. To the extent that the requests for information included in the Office Action are intended to solicit opinions from the party or parties from which the information is requested, Applicant respectfully contends that such requests are an improper use of the

provisions of 37 CFR 1.105, and Applicant respectfully requests that such requests for information be formally withdrawn by the Examiner.

**RESPONSE**

A. Stipulate whether each and every individually cited reference listed on the IDS(s) submitted 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006 is material to the patentability of the instant application; the applicant may either agree or disagree for each cited reference.

**RESPONSE:** Such facts are unknown to or are not readily available to the party or parties from which they were requested.

1. Identify, for each and every citation listed on the IDS(s) submitted 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006, for which applicant agrees is material to the patentability:

a. The differences between the claimed invention and those references cited therein,

**RESPONSE:** Such facts are unknown to or are not readily available to the party or parties from which they were requested.

b. How each reference is material to the patentability, based upon the technical and legal knowledge of the Applicant, of the claimed invention,

**RESPONSE:** Such facts are unknown to or are not readily available to the party or parties from which they were requested.

c. Provide how the instant claimed invention is an improvement over each and every reference that is listed in the IDS submission(s) dated 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006.

**RESPONSE:** Such facts are unknown to or are not readily available to the party or parties from which they were requested.

B. Provide a copy of any non-patent literature, published applications, or patent (US or Foreign) used in drafting the instant application, whether or not cited in the IDS submission(s) dated 1/26/2004, 9/8/2004, 12/15/2004, 1/31/2005, 5/23/2005, 6/13/2005, 6/29/2005, 3/17/2006, 4/28/2006, 7/11/2006 and 8/23/2006.

**RESPONSE:** Applicant notes that portions of the specification of the instant application were drafted more than eight years ago (see *USSN 60/098,466*). To the best of the recollection of the party or parties from which this information was requested and without searching for information that is presently unknown or not readily available, it is believed that one or more of the following references may have been “used” in drafting the instant application:

- Wave Propagation in Petroleum Engineering, Wilson C. Chin (1994)
- Dynamic Analysis Reveals Stability of Roller Cone Rock Bits, Kenner & Isbell, SPE 28314 (1994)
- U.S. Patent No. 4,187,922
- UK Patent Application No. 2,241,266
- A New Way to Characterize the Gouging-Scraping Action of Roller Cone Bits (Ma, Society of Petroleum Engineers No. 19448, 1989)
- U.S. Patent No. 5, 197, 555

Copies of each of these references have previously been provided during prosecution of this patent application.

C. Provide a copy of any non-patent literature, published application, or patent (US or Foreign) that was used in the inventive process to accomplish the applicant's inventive results.

**RESPONSE:** To the best of the recollection of the party or parties from which this information was requested and without searching for information that is presently unknown or not readily available, it is believed that one or more of the following references may have been “used” in the inventive process:

- A New Way to Characterize the Gouging-Scraping Action of Roller Cone Bits (Ma, Society of Petroleum Engineers No. 19448, 1989)

- Ma, Dekun, The Operational Mechanics of the Rock Bit, 1996, Petroleum Industry Press, Beijing, China
- D. Ma, D. Zhou, & R. Deng, The Computer Simulation of the Interaction Between Roller Bit and Rock, 1995
- D. Ma and S.L. Yang, Kinematics of the Cone Bit, 06/1985
- D. K. Ma, A New Method of Description of Scraping Characteristics of Roller Cone Bit, Petroleum Machinery, July, 1988

Copies of each of these references have previously been provided during prosecution of this patent application.

D. Provide the date of first use of the claimed invention, known by any of the inventors or Applicant, at the time the application was filed notwithstanding the date of use.

**RESPONSE:** The above referenced invention is directed to a method for optimizing design of a roller cone bit (see e.g., Claim 1, the "Invention"). The inventor worked on software for several years that incorporates features of the Invention. The software was incorporated into bit design software that is used internally by the Assignee of the above referenced patent application. The bit design software is referred to as IBits™, and the module that incorporates the functionality of the Invention is referred to as the EB™ module. To the best of the inventors recollection, and without searching for information that is presently unknown or not readily ascertainable, the software was used to design several drill bits in 1999 and these drill bits were manufactured and tested in 2000.

E. Trademark(s) or Copyright(s) for the product(s) incorporating the instant claimed invention.

To the best of the recollection of the party or parties from which this information was requested and without searching for information that is presently unknown or not readily available, it is believed that the following trademarks and copyrights may be used in conjunction with products that "incorporate" the Invention:

- Energy Balanced® (trademark - drill bits)
- IBitS™ (trademark - software)
- EB (trademark - software)

- IBitS™ (copyright - software)
- EB (copyright - software)

**CONCLUSION**

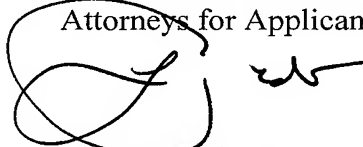
Applicant has made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests the Examiner to remove the status of suspension and proceed to substantive review of all pending claims.

Applicant believes no fees are to be due at this time. However, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

If there are matters that can be discussed by telephone to further the prosecution of this application, Applicant respectfully requests that the Examiner call their attorney at the number listed below.

Respectfully submitted,

BAKER BOTTS L.L.P.  
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Date: 5/8/07

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